## **ELECTROLYSIS-UTILITY**INTEGRATION WORKSHOP

Renaissance Suites at Flatirons, Broomfield, CO September 22-23, 2004



## September 22, 2004

7:30 am	Registration and Continental Breakfast
8:30 am	Welcome and Overview of Workshop Goals, Pete Devlin, DOE/OHFCIT
8:45 am	Review Agenda and Objectives, Shawna McQueen, Energetics
9:00 am	Electrolysis Hydrogen Generation, Steve Cohen, Teledyne Energy Systems
9:20 am	Electrolyzers Operating in Real-World Conditions, Rob Regan, DTE Energy Systems
9:40 am	Break
10:00 am	Technology Advancements and New Concepts, Dan Smith, GE Global Research
10:20 am	DG and Renewable Energy in the Electric Cooperative Sector, Ed Torerro, National Rural Electric Cooperative Association
10:40 am	Electrolytic Hydrogen from a Blend of Nuclear- and Wind-Produced Electricity, Alistair Miller, Atomic Energy of Canada
11:00 am	Wind in the Electricity Infrastructure, Mark McGree, Xcel Energy
11:20 am	Hydrogen at the Fueling Station, Steven Schlasner, Conoco Phillips
11:40 am	Discussion/Questions & Answers
12:00 pm	Lunch with Luncheon Speaker: Electricity Pricing and Regulatory Impacts, Gary Nakarado, Federal Energy Regulatory Commission
1:00 pm	Electrolysis Technology Development and Fueling Infrastructure Options, Matthew Kauffman US Department of Energy
1:40 pm	Near-Term Hydrogen and Electricity Infrastructure Integration, Abbas Akhil, Sandia National Laboratory
2:20 pm	Grid-Based Renewable Electricity and Hydrogen Integration, Carolyn Elam National Renewable Energy Laboratory
3:00 pm	Break, move to Breakout Sessions
3:30 pm	<ul> <li>Breakout Sessions (two breakout groups will address the same topics in parallel)</li> <li>Electrolysis Vision Impacts on and Opportunities for Electric Utility Industry</li> <li>Key Barriers to Widespread Deployment of Electrolysis-Based Hydrogen Production</li> </ul>
5:00 pm	Adjourn
6:00 pm	Group Dinner (No Host)

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Agenda

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## **September 23, 2004**

7:30 am	Continental Breakfast
8:30 am	<ul> <li>Breakout Sessions Resume</li> <li>Electricity Infrastructure Needs and Key Barriers to Widespread</li> <li>Deployment of Electrolysis-Based Hydrogen Production (cont'd)</li> </ul>
9:45 am	Break
10:00 am	<ul> <li>Breakout Sessions</li> <li>Enablers for Widespread Deployment of Electrolysis-Based Hydrogen</li> <li>Production</li> </ul>
12:00 pm	Lunch
1:00 pm	<ul> <li>Breakout Sessions</li> <li>Analysis of Top Priority Needs and Opportunities</li> <li>Prepare for Summary Session</li> </ul>
2:00 pm	Plenary Session: Breakout Group Summary Reports
2:40 pm	Action Items and Wrap-up
3:00 pm	Adjourn
3:00 - 5:00 pr	m Tour NREL National Wind Technology Center and Electrolysis Test Facility